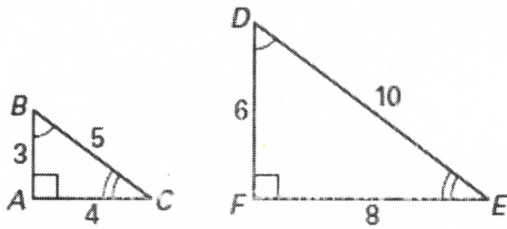


Geometry Unit 6 Worksheet #5 – Similar Polygons and Scale Factors

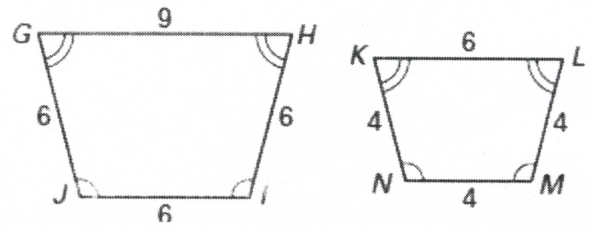
For #1 -6, complete the similarity statement for the pair of polygons. Then find the scale factor.

1)



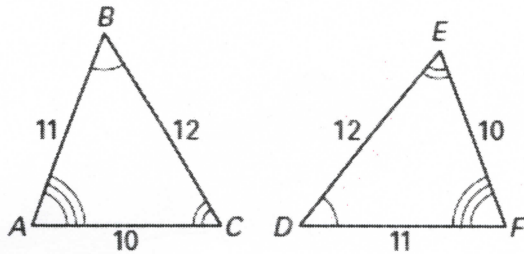
$\triangle ABC \sim \triangle FDE$, scale factor $\frac{5}{10} = \frac{1}{2}$

2)



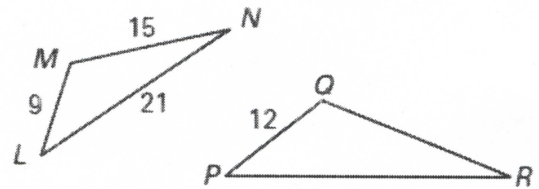
$JGHI \sim NKLM$, scale factor $\frac{6}{4} = \frac{3}{2}$

3)



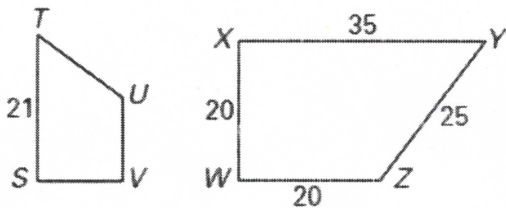
$\triangle ABC \sim \triangle FDE$, scale factor $\frac{10}{10} = 1$

4)



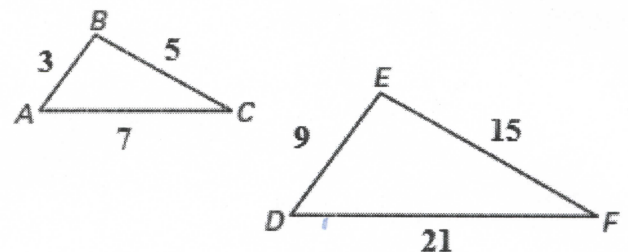
$\triangle LMN \sim \triangle PQR$, scale factor $\frac{9}{12} = \frac{3}{4}$

5)



$TUVS \sim XYZW$, scale factor $\frac{21}{35} = \frac{3}{5}$

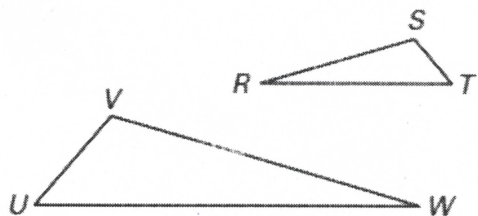
6)



$\triangle ABC \sim \triangle DEF$, scale factor $\frac{3}{9} = \frac{1}{3}$

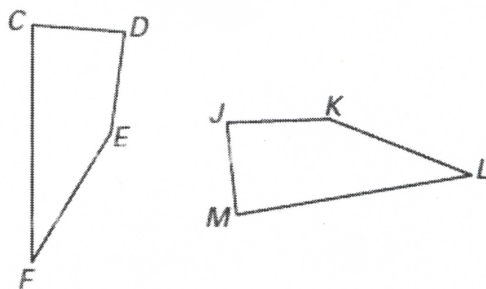
For #7 & 8, using the similarity statement list the angles that are congruent.

7) $\triangle RST \sim \triangle WVU$



$\angle R \cong \angle W$, $\angle S \cong \angle V$, $\angle T \cong \angle U$

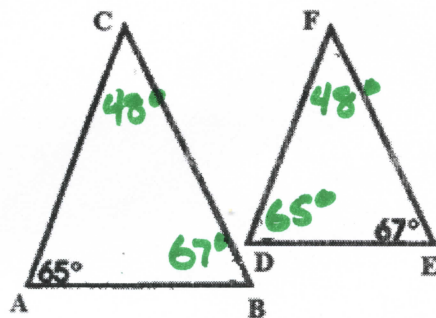
8) $CDEF \sim MJKL$



$\angle C \cong \angle M$, $\angle D \cong \angle J$, $\angle E \cong \angle K$, $\angle F \cong \angle L$

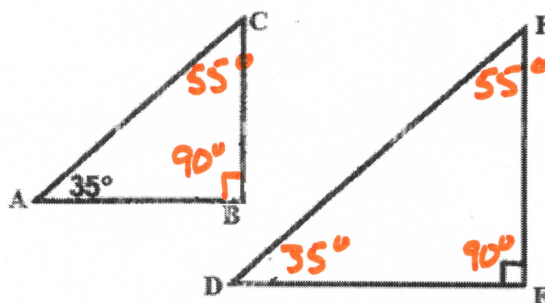
For #9 - 11, use the similarity statement to help you solve for the missing angles in the triangle.

9) $\triangle ABC \sim \triangle DEF$



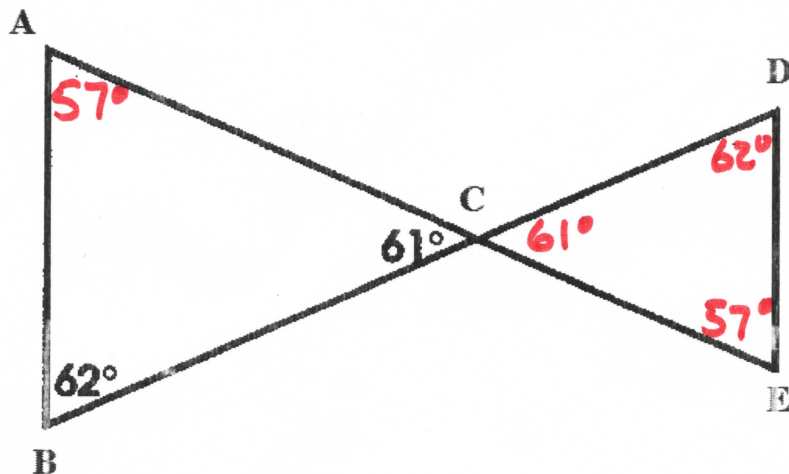
$\angle B = 67^\circ$ $\angle C = 48^\circ$
 $\angle D = 65^\circ$ $\angle F = 48^\circ$

10) $\triangle ABC \sim \triangle DEF$



$\angle B = 90^\circ$ $\angle C = 55^\circ$
 $\angle D = 35^\circ$ $\angle F = 55^\circ$

11) $\triangle ABC \sim \triangle EDC$



$\angle A = 57^\circ$

$\angle DCE = 61^\circ$

$\angle D = 62^\circ$

$\angle E = 57^\circ$